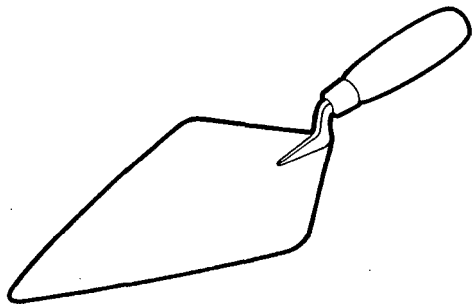


Chapter 53 MISCELLANEOUS TOOLS

HOW TO CHOOSE AND USE THEM

The “Types and Uses” section provides you with a list of some of the types of miscellaneous tools. These pages should help you select the right miscellaneous tool to do the job.

The “Using” section tells you how to use these various tools to perform the desired function. The “Care” procedures tell you how to care for the item.

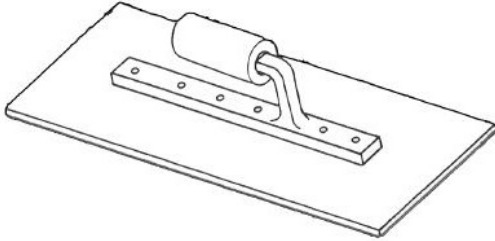


INDEX

<i>Item</i>	<i>Page</i>
TYPES AND USES	53-2
Cement trowel	53-2
Brick trowel	53-2
Miner's spoon	53-2
Blocks	53-2
Trip wire grapnel	53-3
Chain assembly	53-3
Cable jaw grip	53-3
Tension puller	53-3
SAFETY	53-4
USING	53-4
CARE	53-7

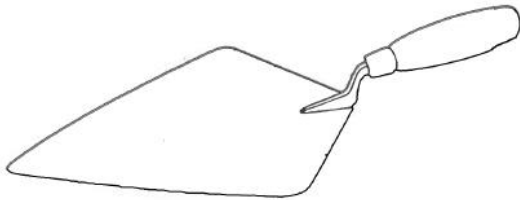
TYPES AND USES

CEMENT TROWEL



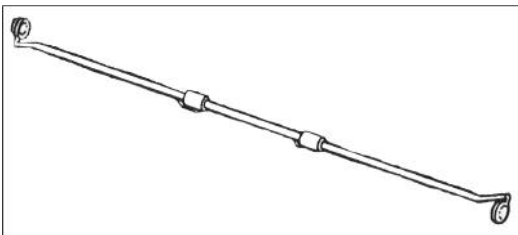
The cement trowel is a flat rectangular blade fastened by a metal strap and shank to a wooden handle. It is used in concrete work for leveling, smoothing, or pushing wet cement into place.

BRICK TROWEL



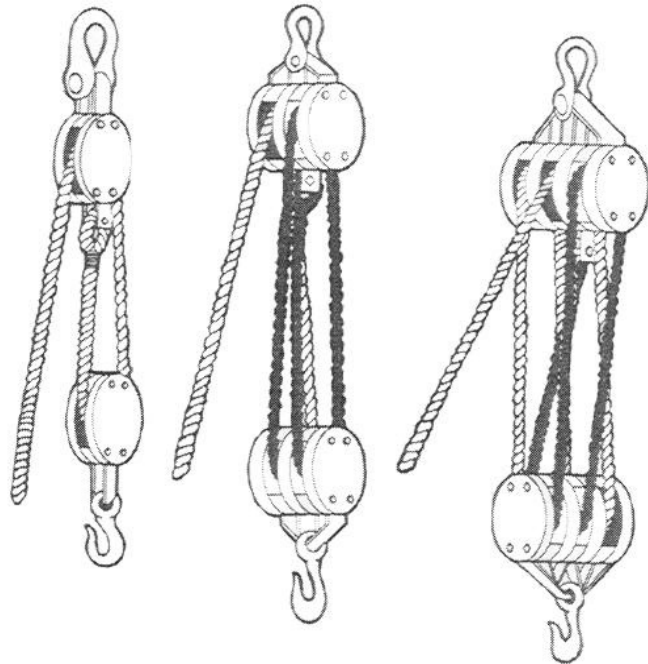
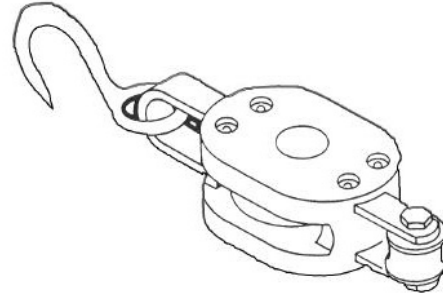
This type of trowel has a pointed flat blade at one end, and a steel shank that attaches to a wooden handle at the other. The brick trowel is used to scoop and spread mortar.

MINER'S SPOON



The miner's spoon is used to lift material out of narrow deep holes, in order to clear for further drilling or to permit placing of explosive charges. The miner's spoon is a slender metal rod with the ends forged into small bowl-shaped projections at right angles to the rod.

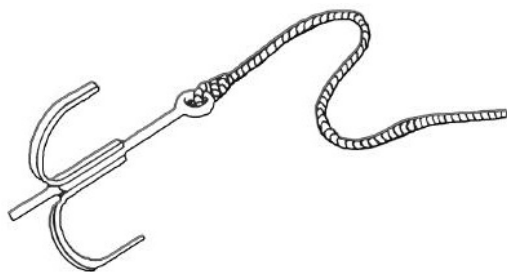
BLOCKS



Blocks are used in combination with rope and wire to hoist and move loads. The block consists of a metal shell which supports both ends of a pin. The shell also houses a grooved pulley that revolves on the pin. Attached at one end of the first block is a freely revolving hook. Blocks may be classified as single, double, triple, etc. according to the number of pulleys housed in the shell of the block. Depending on the various combinations of blocks available to do the job, the mechanical advantage can be increased indefinitely.

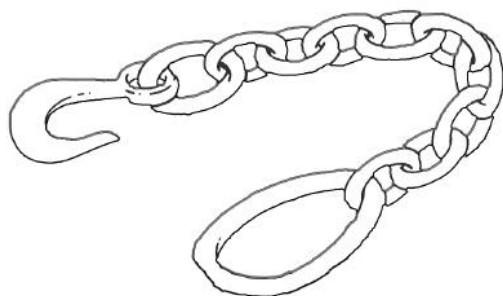
TYPES AND USES - Continued

TRIP WIRE GRAPNEL



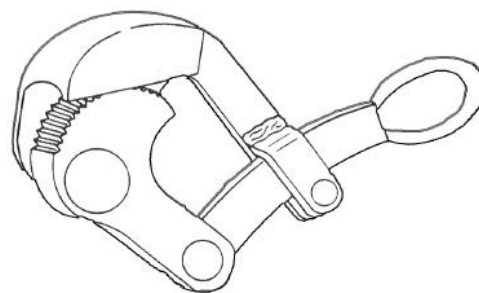
The trip wire grapnel is a metal weight resembling three or four fish hooks, with a common shank ending in an eye. The hooks spread out in different directions at the other end of the shank. Attached to the eye portion of the shank is a marlin cord of varying length. The grapnel is used to trip wires designed to go off on contact, to find booby traps, or to detonate mines.

CHAIN ASSEMBLY



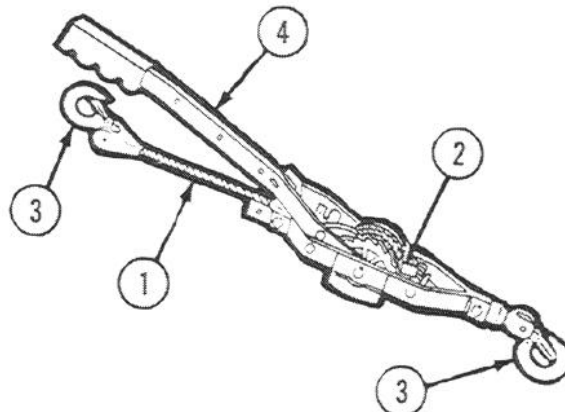
The chain assembly is a heavy duty linked chain with a grab hook at one end and a ring at the other. The chain assembly is used for such applications as towing vehicles, slinging loads, and hauling objects. The chain assembly is available in a wide variety of lengths and link sizes depending on the nature of the use.

CABLE JAW GRIP



The cable jaw grip is used to tighten or stretch wires or cables for various operations. Examples of application include removing kinks or bends in cables, tightening cables on loads or bales, or for cleaning and oiling of cables. Cable grips, depending on their application, vary in size and design.

TENSION PULLER

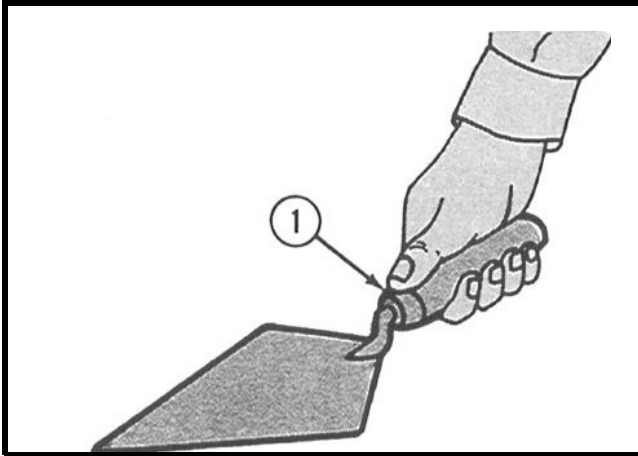


Like the cable jaw grip, the tension puller is used to tighten or stretch cables. The tension puller has strong cable (1) attached to a cable notch gear (2). At the end of the cable is a hook (3). This hook (3) can be attached to the eyelet of the cable to be tightened. Tension is then applied to the cable by moving the tension handle (4) in an up and down motion.

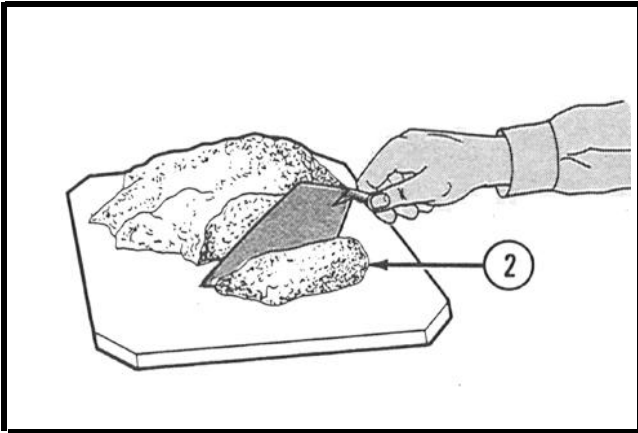
SAFETY

1. Wash brick trowel, thoroughly wash all mix dust from skin, and remove dusty clothing when finished. Dust ingredients can burn the skin or cause eye injury.
2. When using the tension puller, be sure the hook (or hooks) is of correct size to hold the cable snugly.
3. When swinging the trip wire grapnel, hold the rotating tool at a safe distance from the arm.
4. Be sure tackle used with blocks is safe and meets lifting requirements.
5. Use each tool only for its designated purpose.

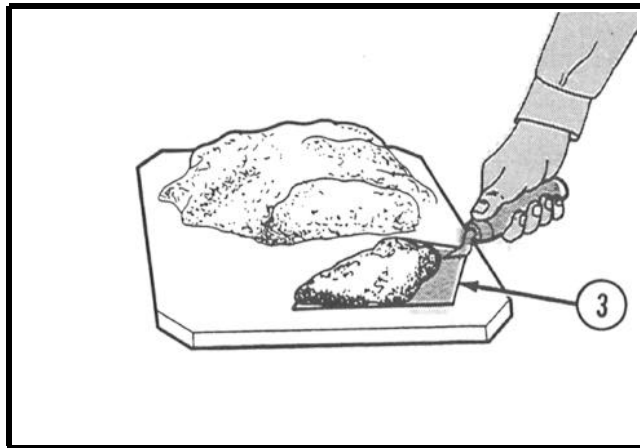
USING THE BRICK TROWEL



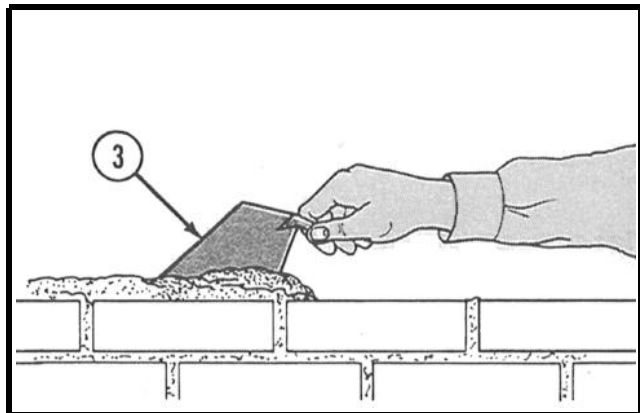
- 1 Hold the trowel with thumb on top of handle (1) for balance and control.



- 2 Slice off a trowel load of mortar (2).

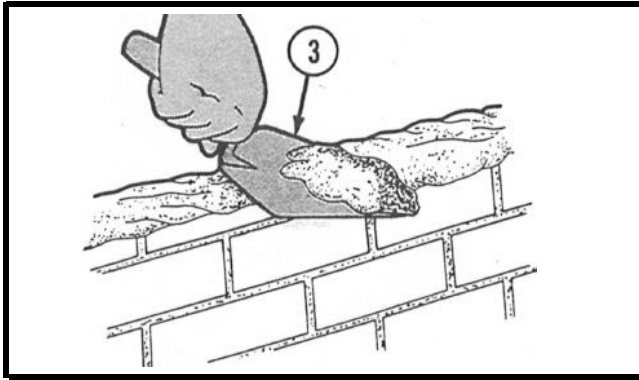


- 3 Slide the trowel under the mortar, seating it firmly on the blade (3) with a slight jerk of the wrist.
- 4 Hold the edge of the blade over the center of the work surface.



- 5 Move the trowel steadily backward, tilting it to slide the mortar gradually from the blade (3), leaving an even bed of mortar on the work surface.

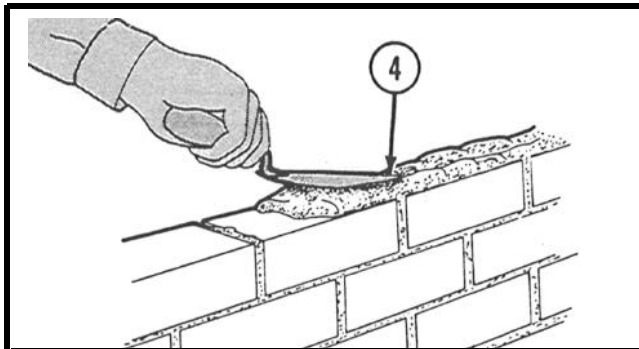
USING THE BRICK TROWEL - Continued



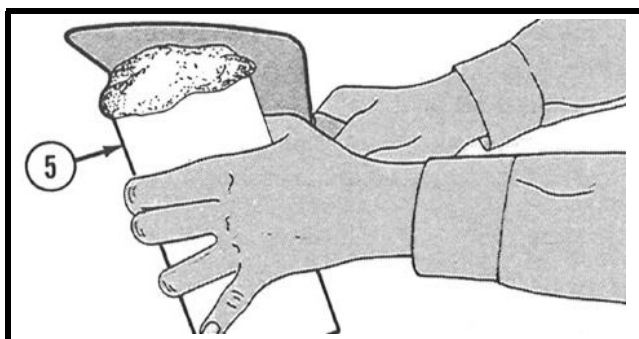
- 6** Cut off excess mortar after each application by holding the trowel blade (3) slightly angled against the work surface and moving forward.

NOTE

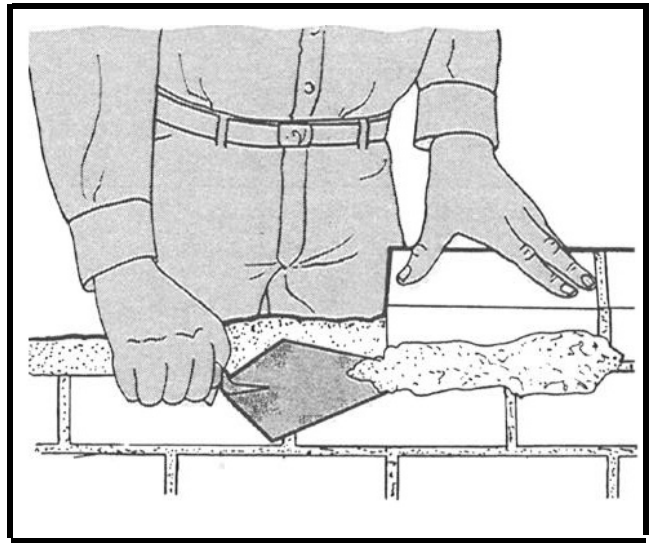
Excess mortar should be returned to mortar board or applied to any gaps or uneven areas in the mortar bed.



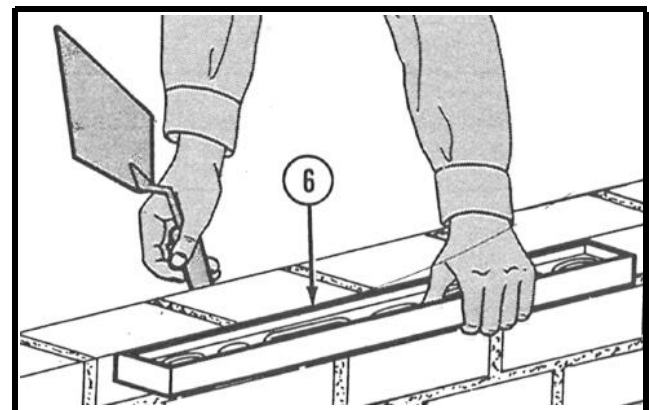
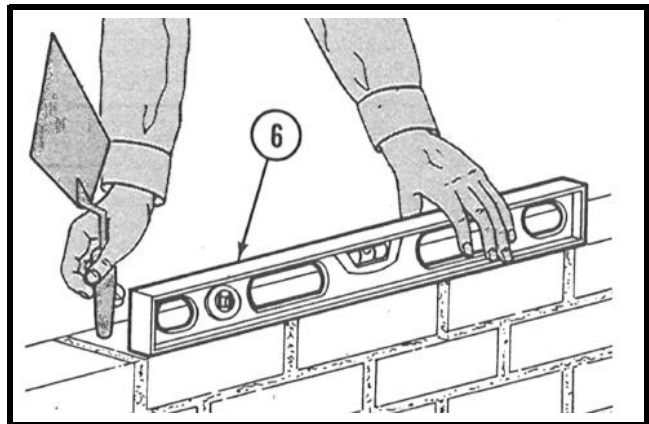
- 7** To allow enough movement to position bricks, groove the mortar bed with the point (4) of the trowel.



- 8** Using the trowel, coat the brick ends (5) with mortar before laying them in place.

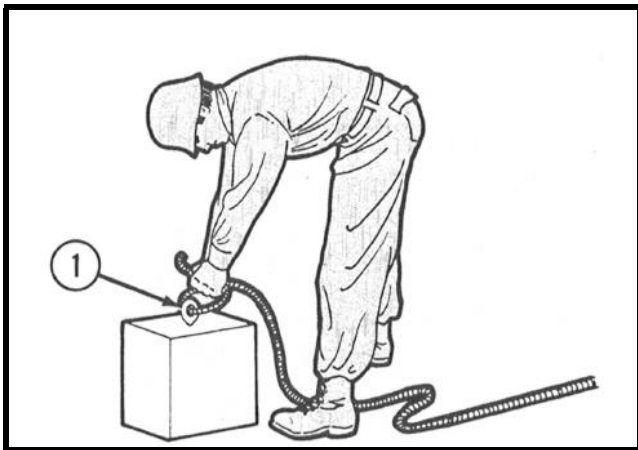


- 9** Cut off any excess mortar.

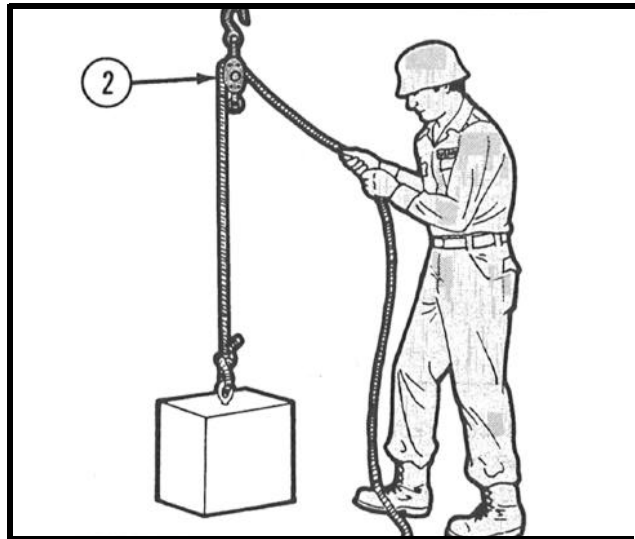


- 10** Lay enough bricks to cover the mortar bed and tap into line using a builder's level (6).

USING THE BLOCK

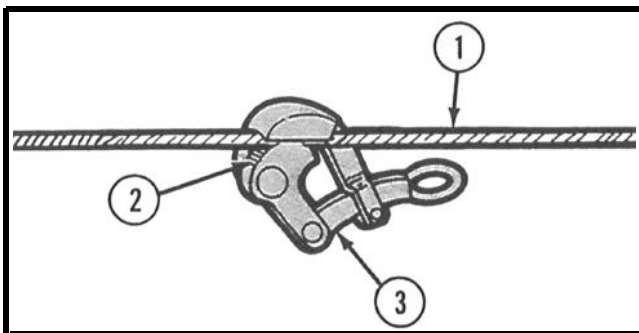


- 1 Secure one end of the rope or ropes to the load (1) to be moved.

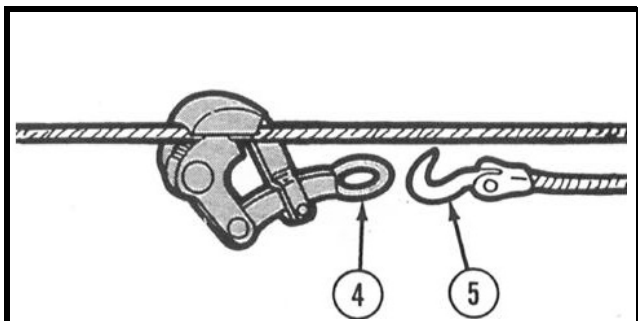


- 2 Pass the other end of the rope over the pulley (2) of the block attached to some type of solid support.
- 3 Apply the necessary manpower to the end of the rope to lift the load.

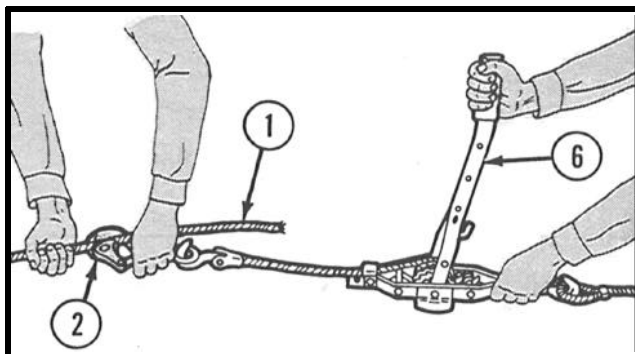
USING THE CABLE JAW GRIP AND TENSION PULLER



- 1 Place end of cable (1) between jaws (2) of cable jaw grip (3) (from jaw end of tool).



- 2 Fasten eye (4) to tension puller hook (5).



- 3 Hold the jaws (2) together over cable (1). Apply pressure with tension puller handle (6).
- 4 Apply pressure until cable (1) is stretched to make the jaws (2) hold the cable firmly.
- 5 Continue pressure using handle of tension puller (6) until desired pressure is reached.

CARE OF MISCELLANEOUS TOOLS

1. Clean all tools thoroughly after using.
2. Store tools in approved areas to prevent damage.
3. Oil all rustable metal parts of tools before storing.

WARNING

LINSEED OIL IS A FLAMMABLE LIQUID. TO AVOID PERSONAL INJURY, PROPERLY DISPOSE OF ALL CLEANING RAGS IN NON-COMBUSTIBLE CONTAINERS.

5. Do not use a brick trowel to pry bricks or rocks loose.
 6. Never oil pulley grooves.
 7. Inspect tools frequently, especially pins in blocks.
 8. Never use a damaged chain assembly. Replace damaged chain links promptly.
 9. Always use the proper size and design of cable jaw grips for each task. Using the wrong size or style can be dangerous.
4. Prevent wooden parts of tools from drying out by applying linseed oil occasionally.

